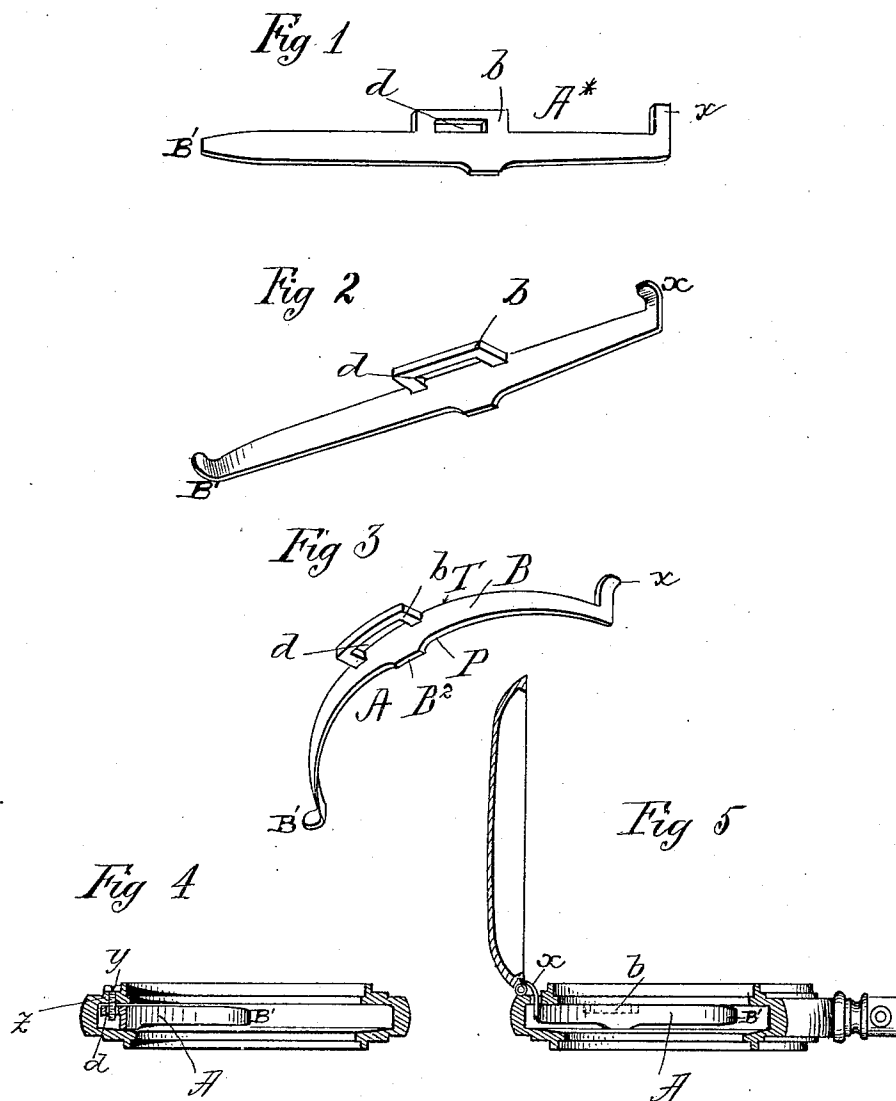


(No Model.)

B. MURPHY.  
WATCHCASE SPRING.

No. 552,069.

Patented Dec. 24, 1895.



Witnesses.  
*Wm H Chapin*  
*N. J. Clemons*

Inventor  
*Bruce Murphy*  
BY *Chapin & Co.*  
Attys

# UNITED STATES PATENT OFFICE.

BRUCE MURPHY, OF ORILLIA, CANADA, ASSIGNOR TO EZRA F. BOWMAN,  
OF LANCASTER, PENNSYLVANIA.

## WATCHCASE-SPRING.

SPECIFICATION forming part of Letters Patent No. 552,069, dated December 24, 1895.

Application filed January 10, 1895. Serial No. 534,502. (No model.)

*To all whom it may concern:*

Be it known that I, BRUCE MURPHY, a subject of the Queen of Great Britain, residing at Orillia, in the county of Simcoe and Province of Ontario, Canada, have invented new and useful Improvements in Watchcase-Springs, of which the following is a specification.

My invention relates to an improvement in watchcase-springs; and it consists in a spring having a slotted lug or extension formed on its top outside edge, a short projection on its lower edge near the center of the spring, and having its inner end curved outwardly so as to bear against the inner side of the case, as will be more fully described hereinafter.

The objects of my invention are to provide a watchcase-spring which has a slotted lug formed on its top outside edge, and which is turned at right angles to the body of the spring so that the retaining screw can be passed down through it between the case and the spring, and thus allow the spring a greater freedom of motion and elasticity than is possible where the screw is passed down inside of the spring; to bend the inner end of the spring so that it will bear against the case, and by holding the spring out of contact with the case give the spring a greater amount of elasticity than where the body of the spring bears against the case in the usual manner; and to form on the bottom edge of the spring a flange or extension, which is usually made a little wider than necessary, so that it can be filed away to make a perfect fit to any case to which it may be applied.

In the accompanying drawings, Figure 1 is a perspective view of the blank from which the spring is to be formed. Fig. 2 is a similar view showing the body of the spring straight, but the other portions bent into shape. Fig. 3 is a perspective of the spring complete. Figs. 4 and 5 are vertical sections taken through the case and showing the spring in position.

The watchcase-spring A is formed from a blank A\*, (shown in Fig. 1,) and which consists of a flat strip of steel, which has its outer end provided with an extension  $x$  and its inner end B' reduced in width and then turned

at about a right angle to the length of the spring. The extension  $x$  extends at an angle to the plane of the body of the spring and is curved in the usual manner so as to engage with and operate the lid of the watch as shown, while the end B' bears against the inner side of the case and holds the spring out of contact therewith, forming a point of resistance and thereby giving the outer end of the spring a greater amount of elasticity and movement than it could possibly have if the spring were held against the case in the usual manner.

At any suitable point between the two ends of the spring upon the top edge T is formed the extension or lug  $b$ , through which is made the longitudinal slot  $d$ , and which extension or lug is turned back at a right angle to the body of the spring, so that the retaining-screw  $y$  can be passed down through the slot, and between the spring and the case. This screw secures the spring in position, and passing down through the watchcase center Z and between the case and the spring does not interfere with its movement as it would by holding the body B against the case, and hence all liability of the breaking of the spring is done away with and the screw is concealed from view.

On the lower edge P of the spring, at or near its center, is formed the extension or lug B<sup>2</sup>, which is usually made slightly wider than necessary so that it can be filed away and thus the spring made to fit snugly in any watchcase. If the springs are to be made for any particular make of watchcase, the springs will, of course, be made just the proper width to fit snugly, but where the springs are made to be applied to all makes of watchcases this extension B<sup>2</sup> will be made so as to fit the widest, and hence it will be necessary to file away this edge for all cases of intermediate widths. The length of this extension B<sup>2</sup> is but a very small part of the length of the spring, and hence there is but a very small amount of filing to be done, whereas if there is no extension and the spring is too wide for the case, the spring must be filed away its whole length.

Having thus described my invention, I claim—

A watch case spring having its outer end bent so as to engage with the lid of the case, and its inner end turned at an angle to bear against the case and keep the body of the  
5 spring out of contact therewith, and provided on its top edge with a slotted extension which is turned at a right angle to the body of the

spring on the outside, and an extension on its lower edge, substantially as shown.

BRUCE MURPHY.

Witnesses:

F. G. EVANS,  
W. GRANT.